



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,862	09/29/2006	Cheng Tao	PA040012	8151
24498	7590	12/08/2010		
Robert D. Shedd, Patent Operations			EXAMINER	
THOMSON Licensing LLC			DAZENSKI, MARC A	
P.O. Box 5312				
Princeton, NJ 08543-5312			ART UNIT	PAPER NUMBER
			2481	
			MAIL DATE	DELIVERY MODE
			12/08/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/594,862

Applicant(s)

TAO ET AL.

Examiner

MARC DAZENSKI

Art Unit

2481

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/8)
- _____ Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- _____ Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 April 2010 has been entered.

Response to Arguments

Applicant's arguments filed 6 April 2010 have been fully considered but they are not persuasive.

On pages 6-7 of the remarks, Applicant argues regarding claim 6, "Nowhere does Frimout disclose or suggest generating an inter-coded picture based on the output of the intra-coded picture memory and containing change information between the output of the intra-coded picture and the thumbnail." The examiner respectfully disagrees. Frimout discloses utilizing an MPEG Encoder 13 as well as RAM 15 in conjunction with an Assembling Unit 12 (see e.g. column 3, lines 27-31: "...RAM 15 is provided for storing...background and key frame picture data."; column 3, lines 61-66: "...an assembling unit 12 is provided for assembling a background picture read from the RAM 15 and a scaled encoded key frame picture applied from an MPEG encoder 13.").

Further, figure 1 clearly shows an "encoded backgr. picture," "scaled key frame picture," and "scaled encoded key frame picture" all being input into Assembling Unit 12.

Frimout also discloses in numerous spots through the specification that the video information is MPEG (see e.g., the disclosure of an MPEG Encoder in figure 1 as well as column 1, lines 28-32: "...a menu is composed of a background still-picture (which may be MPEG...encoded)..."), in which I, B, and P frames are coded with respect to differences between frames. Because Frimout discloses reading the encoded background picture from RAM 15 ("generating an inter-coded picture based on the output of the intra-coded picture memory") as well as encoded key frame pictures KF1 and KF2 being encoded according to MPEG ("and containing change information between the output of the intra-coded picture and the thumbnail"), the examiner maintains that the previously cited sections of Frimout read on the limitations of the claim.

On page 7 of the remarks, Applicant argues regarding claim 6, "Furthermore, Frimout does not disclose or suggest a thumbnail or its equivalent." The examiner respectfully disagrees, and points to figure 3 wherein First Encoded Key Frame Picture KF1 and Second Encoded Key Frame Picture KF2 are displayed on background BP as smaller than normal size pictures, i.e. "thumbnails." Further, Frimout discloses the creation of this thumbnail at column 3, line 66 through column 4, line 2: "...a scaling unit 16 is provided which reads a selected key frame picture from the RAM 15 and performs a scaling operation according to a corresponding area in the background picture."

On page 7 of the remarks, Applicant applies the same arguments from claim 6 to dependent claims 7 and 8, and that they are allowable "at least by virtue of their dependency on claim 6." Since the examiner has already shown above how the cited sections of Frimout read on the limitations of claim 6, dependent claims 7 and 8 remain rejected.

On page 8 of the remarks regarding claim 1, Applicant argues that "the combination of Schumann and Frimout does not read on claim 1," because "...Schumann does not disclose generating an inter-coded picture having no change information for blocks of the inter-coded picture corresponding to the predefined blocks, and having change information for selected blocks containing the thumbnail, as required by claim 1." Further, Applicant argues "...Schumann's P-frame, in contrast to claim 1, has change information for all blocks in relation to its I-frame. Schumann does not disclose or suggest an I-frame with predefined blocks and constructing a P-frame having no change information for blocks which correspond to the predefined blocks of the I-frame." The examiner respectfully disagrees.

In formulating their arguments, Applicant states "...Schumann's P-frame, in contrast to claim 1, has change information for all blocks in relation to its I-frame." The examiner notes that a careful reading of claim 1 reveals that nowhere does it say the change information cannot be related to "all" blocks. The claim merely specifies "predefined" and "selected" blocks; however the claim does not contain language which precludes the scenario outlined in Applicant's arguments (assuming their assertion that Schumann's P-frame has change information of all blocks is even accurate). Secondly,

the examiner notes that Schumann discloses at, e.g., column 1, lines 34-51 the well-known I, B and P frames used in the MPEG-2 standard. These I, B and P frames are explained as "an inter-coded picture having no change information for blocks of the inter-coded picture corresponding to the predefined blocks, and having change information for selected blocks containing the thumbnail" (see e.g. the previously cited column 5, lines 1-24: "Initially, an I-frame, representing background, is provided to the output frame structure...The display function is performed by building a P-frame, dynamically at the end user station, into the output frame from the P-frame list that contains graphics elements containing the pre-compressed macroblocks..."; previously cited column 4, lines 25-28: "This is carried out by implementing an MPEG-2 I-frame as a base image, to which is added, at the end user station, one or more temporary MPEG-2 P-frames containing one or more graphical elements."). Therefore, the examiner maintains that the previously cited sections of Schumann do in fact read on the limitations of the claim.

Applicant then provides an advantageous example of the claimed invention on pages 8-9, in which they state, "And the inter-coded picture would be generated having no change information for blocks which correspond to predefined blocks (the background) and having change information for selected blocks (the thumbnail)." Based on this section, it appears Applicant is referring to a display screen which is arbitrarily broken up into sections or "blocks" in which thumbnails and a background are displayed. The examiner notes, however, that the word "block" in claim 1 can be broadly and reasonably interpreted to include "MPEG-2 macroblocks," and therefore

Applicant's arguments regarding the lack of this teaching in Schumann and/or Frimout are moot. Absent some special definition of what constitutes a "block," the examiner maintains the previously cited sections of Schumann and Frimout read on the limitations of the claim and the previous rejection stands.

On page 9 of the remarks, Applicant argues "...disclose the generated inter-coded picture of the claim invention" as well as "...neither Schumann nor Frimout, separately or in combination, disclose the predetermined intra-coded picture." The examiner has already refuted these assertions, and points to the arguments in regards to claims 6 and 1 above.

On pages 9-10 of the remarks, Applicant applies the same arguments from claim 1 to dependent claims 2-5, and that they are allowable "for at least the same reasons discussed above with respect to claim 1." Since the examiner has already shown above how the cited sections of Frimout read on the limitations of claim 1, dependent claims 2-5 remain rejected (wherein dependent claims 9-10 have been canceled).

A full rejection of the pending claims appears below.

Claim Objections

Claim 11 is objected to because of the following informalities: lines 1-2 of the claim refer to "inter-coded picture blocks" that "are not encoded by an encoder. The examiner maintains that by their very nature a "-coded" block must be encoded by some variety of encoder or else it would not be a "-coded" block. As written the claim does not make grammatical sense and it is unclear as to how the inter-coded picture blocks

are not encoded by an encoder, yet are somehow "-coded." Therefore, for the purposes of prior art, the examiner interprets "...are not encoded by an encoder" to mean "...are not encoded by an encoder prior to display." Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-4 and 11 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. Although independent **claim 1** refers to three steps for generating a menu for a video recording medium (e.g., "starting...", "generating...", and "storing..." steps), the claim does not positively recite any structure which undergoes the claimed recording steps and therefore is not tied to any particular apparatus or

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

machine. For example, if the pictures were to be hand drawn onto a piece of paper with subtitles such as "base" and "predicted," and further if these hand drawn pictures were manually divided into blocks, then the claimed "method for generating a menu for a video recording medium" comprising starting, generating and storing steps would be of sufficient breadth that it could be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. The examiner notes that the preamble of claim 1 refers to "the menu...being coded according to a standard using base pictures and predicted pictures"; though it appears that Applicant is attempting to claim a menu coded according to the MPEG standard or the like, the claim as written does not limit the scope to such interpretation.

Dependent claims **2-4 and 11** do not contain language that, following the interpretation outlined in regards to claim 1 above, would tie the apparatus to another statutory category (such as a particular apparatus).

The examiner further notes that claim 5 is *not* rejected under 35 USC 101 due to the recitation of "a picture from an encoder display buffer is duplicated into an extra memory area during the new recording" (see lines 2-3) which cannot be completely performed mentally, verbally or without a machine (i.e., the recitation of "an encoder display buffer" requires a specific machine).

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claims 6-7 are rejected under 35 U.S.C. 101.

Regarding **claims 6-7**, the specification discloses an encoder and memories according to the present invention (see page 7, fourth paragraph through page 8, first

paragraph: "Fig. 4 schematically shows important elements of a device according to the invention. A memory M1 is provided...while a memory M2 is provided...An encoder E1 is a slow encoder, for example a software encoder, while another encoder E2 is a fast encoder preferably a dedicated encoder IC..."). As evidenced by the specification it appears that said claimed system, comprising memories M1 and M2 as well as encoders E1 and E2, is capable of reading on software and as such does not fall into any statutory class of invention. Although the specification states (see e.g. page 8, 2nd paragraph: "...encoder E2 is a fast encoder preferably a dedicated encoder IC..." the examiner notes that use of the word "preferably" does not limit encoder E2 to purely hardware embodiments and that therefore the claimed encoder of **claim 6** may be reasonably interpreted to comprise purely software embodiments. Further, the use of "slow encoder" and "fast encoder" in **claim 7** do not limit the scope of the claimed "encoder" to non-software only embodiments and therefore the claim is rejected in view of the explanation set forth in claim 6 above.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 6**, Frimout discloses a device for generating a menu for a video recording medium, the menu showing a thumbnail representative of a recording on the video recording medium and being coded according to a standard using base pictures and predicted pictures (see column 1, lines 28-31: "Typically a menu is composed of a background still-picture (which may be MPEG...encoded)..."; see column 3, line 66 through column 4, line 2: "...a scaling unit 16 is provided which reads a selected key frame picture from the RAM 15 and performs a scaling operation according to a corresponding area in the background picture."; see figure 3 particularly Background Picture BP and Keyframes KF1 and KF2),

the device having a predefined intra-coded picture memory, a representative picture memory, (see column 3, lines 19-31: "...RAM 15 is provided for storing...background and key frame picture data.");

an encoder for generating an inter-coded picture based on the output of the intra-coded picture memory and containing change information between the output of the Intra-coded picture and the thumbnail (see column 3, lines 60-67: "...an assembling unit 12 is provided for assembling a background picture read from the RAM 15 and a scaled encoded key frame picture applied from an MPEG encoder 13."; see figure 1 particularly "encoded backgr. picture," "scaled key frame picture," and "scaled encoded key frame picture" all being input into Assembling Unit 12; further see the explanation in the "Response to Arguments" section above), and

a recording unit equipped to record the predefined intra-coded picture and the inter-coded picture onto the recording medium (see column 3, lines 19-31: "...a disc drive unit 11 for recording on and reproducing from a recordable optical disc 20...").

Regarding **claim 7**, Frimout discloses everything claimed as applied above (see claim 6). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 6 above (wherein the previously cited MPEG Encoder 13 acts as both a fast and slow encoder due to it decoding both backgrounds and keyframes as well as video, as disclosed at column 1, lines 63-65: "...the normal encoding or decoding pipeline is used for other tasks, such as audio/video loopthrough.").

Regarding **claim 8**, Frimout discloses everything claimed as applied above (see claim 7). Further, Frimout discloses where the fast encoder has a display buffer, the device additionally has an extra memory area and is equipped and arranged to copy, during recording, a picture from the display buffer into the extra memory area, and to subsample, after the recording, the picture in the extra memory area into a picture

information representative for the new recording (see column 3, line 60 through column 4, line 19: "...an assembling unit 12 is provided for assembling a background picture read from the RAM 15 and a scaled encoded key frame picture applied from an MPEG encoder 13...Furthermore, a scaling unit 16 is provided which reads a selected key frame picture from the RAM 15 and performs a scaling operation according to a corresponding area in the background picture...Thus, if the scaled key frames are stored in the RAM 15 as separate entities...this can be done as a set of slices to thereby facilitate insertion and replacement of the scaled key frames in the background picture...").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumann et al (US Patent 6,078,328), hereinafter referred to as Schumann, in view of Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 1**, Schumann discloses a method for generating a menu for a video recording medium, the menu showing a thumbnail representative of a recording on the video recording medium and being coded according to a standard using base pictures and predicted pictures (see column 3, lines 58-67: "...a DVD player 202...The

player 202 also receives user commands from a remote control unit 208, from which a user may respond to menu items, displayed by the application on the screen via MPEG-2 graphics per the invention, for selection.”; see figure 1 particularly MPEG-2 Decoder 104; see figure 2 particularly User Control Unit 208; and see figure 3 buttons Play Movie, Play Previous, View Disc Status and Movie Settings being displayed over background titled Disc Menu), the method having the steps of

starting with a predefined intra-coded picture including predefined blocks, generating an Inter-coded picture having no change information for blocks of the inter-coded picture corresponding to the predefined blocks, and having change information for selected blocks containing the thumbnail (see column 3, lines 16-25: “...graphics elements are combined with the base image overlay. This is performed...displaying a base image comprising an MPEG-2 I-frame; and overlaying the original base image with one or more update images, displayed via at least one MPEG-2 P-frame.”; see column 4, lines 25-28: “This is carried out by implementing an MPEG-2 I-frame as a base image, to which is added at the end user station, one or more temporary MPEG-2 P-frames containing one or more graphical elements.”; see column 7, lines 4-7: “At presentation time, the foreground images, selected by the application for display, are collected and use to encode a complete MPEG-2 P-frame that is then submitted to the decoder for display.”; see also figure 3 particularly buttons Play Movie, Play Previous, View Disc Status and Movie Settings being displayed over background titled Disc Menu), and

storing both the predefined intra-coded picture and the inter-coded picture as menu information (see column 5, lines 1-24: "In order to facilitate display within a DVD player...the resultant I-frame data and P-frame data are wrapped within a DVD structure, in the form of 2k sectors of data bounded by headers conforming to the DVD specification.").

However, Schumann fails to explicitly disclose storing ... "on the video recording medium." The examiner maintains it was well known to include the missing limitations, as taught by Frimout.

In a similar field of endeavor, Frimout discloses storing ... "on the video recording medium" (see column 1, lines 41-58: "...when a recording is added on an existing disc...the new menu picture is encoded and recorded to the appropriate area on the disc.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method of Schumann to include the teachings Frimout, for the purpose of circumventing a normal encoding-decoding pipeline and therefore requiring a minimum of additional hardware and software (see column 7, lines 7-16 of Frimout).

Regarding **claim 2**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses wherein a picture information representative for more than one recording is used for generating the inter-coded picture (see column 1, lines 33-40: "...the menu is presented with specific key frames, each on representing a track or recording. Each used key frame is

scaled and a number of key frames are assembled together to form the menu picture.”; see column 2, lines 15-34: “...the assembling step is performed by replacing entire portions of the background picture by new portions which represent the scaled at least one key frame picture.”; see figure 3 particularly KF1 and KF2 on Background Picture BP as well as figure 4, particularly steps S100 and S103-S104).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method of Schumann to include the teachings of Frimout, for the purpose of eliminating the need for full picture decoding and encoding and requiring only a very limited amount of memory (see column 2, lines 12-14 of Frimout).

Regarding **claim 3**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses wherein the menu is updated with information related to another recording on the video recording medium by generating an inter-coded picture having changes only for selected blocks containing picture information representative for the respective recording (see column 1, lines 36-40: “Each time a new recording is added to the disc, an entirely new background picture needs to be assembled. This can either be achieved from the scratch or by just adding the new key frame to the old background picture.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method of Schumann to include the teachings of Frimout, for the purpose of eliminating the need for full picture decoding and encoding

and requiring only a very limited amount of memory (see column 2, lines 12-14 of Frimout).

Regarding **claim 4**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Schumann discloses wherein an inter-coded picture is added to a previous inter-coded picture (see column 8, lines 4-9: "A graphics change thus is selected and an additional, corresponding, P-frame is created. This process is completed for each graphics element to be displayed. For example, four buttons may be represented by four (or fewer) P-frames, each depicting one or more buttons.").

Regarding **claim 5**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses a picture from an encoder display buffer is duplicated into an extra memory area during the new recording, and the picture in the extra memory area is subsampled after the new recording has been terminated (see column 3, line 60 through column 4, line 19: "...an assembling unit 12 is provided for assembling a background picture read from the RAM 15 and a scaled encoded key frame picture applied from an MPEG encoder 13...Furthermore, a scaling unit 16 is provided which reads a selected key frame picture from the RAM 15 and performs a scaling operation according to a corresponding area in the background picture...Thus, if the scaled key frames are stored in the RAM 15 as separate entities...this can be done as a set of slices to thereby facilitate insertion and replacement of the scaled key frames in the background picture...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method of Schumann to include the teachings of Frimout, for the purpose of eliminating the need for full picture decoding and encoding and requiring only a very limited amount of memory (see column 2, lines 12-14 of Frimout).

Regarding **claim 11**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Schumann discloses wherein the inter-coded picture blocks corresponding to the predefined blocks are not encoded by an encoder (see column 3, lines 16-25: "...graphics elements are combined with the base image overlay. This is performed...displaying a base image comprising an MPEG-2 I-frame; and overlaying the original base image with one or more update images, displayed via at least one MPEG-2 P-frame."; see figure 1 particularly OSD Graphics Subsystem 102 sending Bit Mapped Data to Display Device 110 without first going through to an encoder; see also figure 4, particularly the P-Frame List in MPEG Graphics Subsystem 414 being indirectly sent through to Decoder and then output as Audio/Visual Output 406).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571) 270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on (571) 272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2482

/MARC DAZENSKI/
Examiner, Art Unit 2481